Assessment of Nutritional Beliefs and Practices in Pregnant and Lactating Mothers in an Urban and Rural Area of Pakistan

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Abstract

Nutritional beliefs and practices in 100 pregnant and 100 lactating women were assessed in an urban and rural area of Lahore. A structured questionnaire was used for the purpose. Seventy seven percent women and 54% of their husbands were illiterate, 50.5% belonged to a family with a per capita income of more than Rs.300.oo per month, 52.5% had 7 or more family members and 56% were living in nuclear families. The age of mothers, type of family, literacy, family income, parity and gravidity had not significantly influenced the nutritional beliefs and practices, only urban and rural differences were statistically significant. Eight-four percent of mothers had knowledge that diet should be changed by increasing, adding or avoiding some special food items in the diet during pregnancy and lactation, but only 65.5% practiced them. The reasons for this deficient knowledge and practice of dietary intake are lack of nutritional knowledge and poor economy. However, this can be overcome by improving nutritional knowledge and dietary practices of population in general and vulnerable groups in particular through media and MCH services on the use of locally available low cost nutritious foods and to avoid undue food restrictions. Improvement of applied nutritional knowledge of medical professionals is also necessary (JPMA 47:60, 1997).

Introduction

According to Pakistan National nutrition survey (1985-87), 45.2% of pregnant/lactating mothers are anaemic with haemoglobin values (Hb) <11 gm% and 9.6% with Hb <19 gm%'. In poor families 25-30% of babies are born with birth weights below 2.5 kg but in affluent families the birth weight is 3.5 kg with only 10% below 2.5kg[1]. Among children under 5 years, 7-10% suffer from malnutrition. The infant and maternal mortality rates in Pakistan are 80/1000 and 2-4/1000 live births respectively[2]. Malnutrition in combination with infections is one of the major causes for the high death rates. As extra energy is required to meet the requirements associ-ated with pregnancy/lactation[3], so maternal nutrition also becomes a major contributing factor for the low infant birth weight and growth retardation[1]. The mother's diet is affected by socio-cultural influences[4]. Such beliefs like avoiding Papaya by pregnant mothers, with a fear of spontaneous abortion, eating less for easy deliveiy, abstaining from beef to prevent infant death[5-7] and avoidance of hot and cold, light and heavy foods[8,9] lead to restrictions of nutrition foods during pregnancy and lactation[10]. The data on the nutritional beliefs and practices among pregnant and lactating mothers in developing countries world-wide provide some insight to the subject. However, such information in Pakistan is limited and this study was conducted to learn about the knowledge and beliefs on diet of urban and rural pregnant and lactating women and pmvide a basis for an intervention programme to educate mothers on improved nutritionduring pregnancy and lactation.

Methodology

Study area:
This cross sectional community based study was conducted inLahore, second largest city of Pakistan. Two areas, one rural (population 2895 and 345 families) and one urban community (population 51279 and 685 families) were surveyed.

Study population and assessment
Fifty women from each group, pregnant and lactating and from both rural and urban areas were randomly selected for the study. These 200 women after having given verbal consent were interviewed and a structured questioniiaire was filled which had been pretested and precoded. The interviewing team comprised of a lad doctor, a lady health visitor, one dai (traditional birth attendant) and one male attendant. Three such teams were formed and trained on the job forsix days. The dataquality was monitored and omissions reviewed.

Data analysis
Data from the questionnaires was analyzed using Epilnfo version 5.1 and results presented as frequencies and mean values (+/- standard deviation). Descriptive methods were used to present qualitative data and given in the form of frequency distribution. Quantitative analysis (chi square) was perfonned to test the association of a number of socio-economic factors that may affect the nutritional beliefs and practices in pregnant/lactating mothers.

Results

The demographic profiles of the pregnant and lactating mothers and their families are presented in Table I.

Table I. Demographic features of Lahore, Pakistan[13].

Total population	5 million
Population density	>2000/sq. km
Average number of persons per house	6-7
Total fertility rate	5.36
Male to female ratio	115:100
Average age of females at marriage	21.7 years
Crude birth rate	44.38/1000 pop
Crude death rate	7.24/1000 pop

Amongst the women interviewed, 77% of them and 54% of their husbands were illiterate; 65% belonged to families with per capita income of more than Rs.300 per month; 52.5% had 7 or more family members and 42% were living in nuclear families.

Nutritional knowledge
The details of the nutritional knowledge of the pregnant and lactating women are shown in Table II.

Table II. Information about pregnant and lactating mothers.

Type	Pregnant		Lactating	
Locality	Urban	Rural	Urban	Rural
No. of mothers	50	50	50	50
Mean age (yars)	26.20	25.68	26.90	27.02
Husband literacy				
Illiterate	19	34	20	35
Literate*	31	16	30	15
Wife literacy				
Illiterate	28	44	32	49
Literate	22	6	18	1
Income per capita				
Rs.300 per month or less	23	19	31	26
more than Rs.300 per month	27	31	19	24
Family type				
Extended**	29	23	19	17
Nuclear***	21	27	31	33
Family size				
6 or less members	25	26	20	24
More than 6 members	25	24	30	26
Obstetric history				
Gravidity				
Gravida-1	9	9		
Gravida-2	10	5		
Gravida-3/more	31	36		
Parity				
Para-0	10	9		
Para 1 & 2	17	17	21	13
Para 3 or more	23	24	29	37
Foetal loss	14	13	18	6

*A person who has attended some school for education.
**Families in which in addition to the husband, wife and their children, some relatives of the husband or wife are also living.
***Families in which only husband, wife and their children are living

Subjects favouring a change in diet suggested an increase in quantity with the addition of fruits, meat and milk. The lactating mothers desired fruit juices and yogurt also. Ninety four women expressed the avoidance of hot foods as eggs, Karela (bitter gourd) and fish during lactation. They also believed that gram, raw vegetables and fruits, cold and sour food should not be consumed. The dietary practices of the interviewed women can be seen in Table III.

Table III. Information about the knowledge and practice of change in diet during pregnancy and lactation.

Type	Pregnant		Lactating	
Locality	Urban	Rural	Urban	Rural
No. of mothers	50	50	50	50
Knowledge about, diet change during pregnancy				
Did not know	6	5	5	4
Should not change	6	-	6	-
Should change	38	45	39	46
Practice of changing diet during present pregnancy				
Not changed	25	5	37	2
Changed	25	45	13	48

Fifty percent of the women who had changed their diet claimed to have increased the quality by adding milk, lassi (yogurt drink) and fruits. They admitted the avoidance of the so called hot foods as eggs, fish, gram, raw fruits and vegetables and brinjal. These alterations were made on the instructions of the family members, lady health visitor, dai or neighbours. Sixty nine percent subjects were unable to take special foods due to poverty. Ninety percent women percieved costly food items to have a better nutritive value.

Discussion

The findings of the study show that 84% of the pregnant/lactating mothers have the knowledge that women need betternutritionduringpregnancy and lactation. Butatthe same time they avoid foods like beef, eggs, brinjal, fish and citrus fruits as these are considered hot and could have ill effects on their babies. These beliefs and practices during pregnancy and lactation are similar to the ones reported from different studies, as avoidance of meat and fish in Sudan, buffalo milk in TamilNadu (India), fish, curds, grapes, citrus, pineapple, mangoes, coconut in India, dal in South India, gram and lentils in Pakistan, vegetables in South Africa and chillies in Guinea Bissaue, fermented vegetable and citrus in Thailand, avocados and mangoes in Mexico, citrus, melon, sugar cane and long bananas in Vietnam[10]. In most cases the avoided food items are of a low cost and their replacementwith high cost foods is an economic burden on the low socio-eeonomic families. All these addition and avoidance practices in this study were independent of the education, economic status and obstetric experience of the mothers.
The study also revealed that desplie having the knowledge on nutrition during pregnancy and lactation (84% women) only 65.5% put it in practice. This discrepancy was higher in urban areas. Consideration of expensive foods to have a higher nutrition value was independent of literacy level or social status.

Unfortunately all these beliefs and practices prevail more in the developing countries and in the low economic strata. The information obtained from this study conducted in two groups of women living in and near Lahore, reveals the prevalent nutritional beliefs and practices even in the relatively developed areas of the country. There is a disbelief that expensive foods have a higher nutrition value and their being unavailable to the low economic strata leads to deficiencies and poor health. Low cost alternatives are not acceptable due to socio-cultural restrictions.

Nutritional knowledge and dietary practices in the population can be improved particularly in vulnerable groups by:

1. Correction of nutritional knowledge and dietaiy practices of pregnant and lactating mothers, especially on the use of locally available low cost alternative foods and to avoid undue food restrictions. This can be done through MCH services by one to one consultation.
2. Improvement of nutritional knowledge of medical personell especially LHVs trniend dais and doctors about the use of locally available low cost alternative foods. During this training lectures on applied nutrition and practical nutritional demonstrations should be provided by nutritionists.
3. Educating the people in general about the use of locally available low cost alternative foods through the print and electronic media.

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